

Achievements of Phase One (2012-2017)

Biodiversity workstream

- Planted over 200,000 plants across 81 sites (Photo 1).
- Re-establishing Te Repo Orariki (Taumutu Wetlands) in partnership with Te Taumutu Rūnanga (Photo 2).
- Planted four Department of Conservation (DOC) sites on lake-shore.
- Conducted [willow](#) control at priority sites, delivered by DOC. Due to combined efforts in recent years, willows have largely been controlled on the eastern shore of the lake.
- Conducted weed surveillance and control at priority sites.
- Funded grants for five restoration projects on private land.
- Conducted possum monitoring and control around Hart's Creek Wildlife Management Reserve, delivered by DOC.
- Cleaned up rubbish at Greenpark Sands.
- Drafted a Lower Halswell/Huritini Catchment Plan.



Photo 1: Gulliver's Road planting site.



Photo 2: Te Repo Orariki.

Science workstream

- Conducted an ongoing monitoring programme for water quality.
- Achieved [real-time monitoring of lake water quality](#).
- Progressing a [trial establishment of macrophytes](#) that are being planted behind [wave barriers](#) (Photo 3). Two wave-barriers and artificial habitats (floating islands planted with native species, and bracken bundles) have been installed in the Lake.
- Completed an investigation into options for the lake opening.
- Completed an investigation into possibilities for an engineered lake level.
- Completed an assessment of surface flow, and in-lake, nutrient attenuation.
- Completed an investigation into nutrient processing in Te Waihora, including an upgraded nutrient model for the lake.
- Completed an investigation into [fish recruitment/fisheries management](#) (Photo 4).
- Supporting Lincoln University on the development and implementation of an integrated monitoring plan.
- Conducted two surveys into habitat for the endangered and endemic Canterbury mudfish.
- Conducted a fish habitat survey of the Halswell/Huritini River and Ahuriri Lagoon.
- Held two [Science Hui](#).



Photo 3: Wave barrier.



Photo 4: Investigations into fish recruitment.

Extension workstream

- Supporting Te Ara Kākāriki to deliver the [Kids Discovery Plant-out](#), reaching 11 schools and 1,000 students.
 - Coe's Ford site planted by Burnham School.
 - Chamberlain's Ford site planted by Springston School.
 - Lakeside Scientific Reserve site planted by Leeston School.
 - Glentunnel School site planted by Glentunnel School.
 - Mahoe Reserve site planted by Lincoln Kindergarten.
 - Ladbrooks School site planted by Ladbrooks School.
 - Tai Tapu River Walkway site planted by Tai Tapu School.
 - Broadfield School site planted by Broadfield School (Photo 7).
 - Rolleston Christian School site planted by Rolleston Christian School.
 - Mitchell's Road site planted by Greendale School.
 - Kowhai Reserve site planted by West Melton School.
- Held five Farm Environmental Plan workshops.
- Developed a Farm Environmental Plan template.
- Completed 53 Farm Environmental Plans.
- Completed visits to 25 farms to discuss nutrient budgets, water use efficiencies, and improving environmental outcomes.
- Held two Phosphorus and Sediment Field-Days.
- Held an [Electro-fishing Field-Day in the Kaituna sub-catchment](#).
- Conducted streamwalks along Waiekekawai Stream and Hart's Creek.
- Supported COMAR monitoring in the Kaituna sub-catchment.
- Produced a draft Kaituna Catchment Management Strategy.
- Supported the Sustainable Drain Management Project, including designing a sediment trap and producing a [short video on Hart's Creek](#).



Photo 7: Broadfield School planting.

Cultural workstream

- Completed a study into the cultural monitoring of mahinga kai (Photo 5).
- Completed an investigations into mahinga kai bio-health.
- Provided cultural input into Farm Environmental Plans.



Photo 5: Cultural monitoring of mahinga kai.

Engineering workstream

- Re-battered 21.3km of waterways to reduce sediment (Photo 6).
- Completed works on Kaituna River banks to reduce erosion.
- Completed an investigation into the sediment sources in the Halswell/Huritini River.
- Completed landscape designs and construction plans for two riffles on the Halswell/Huritini River.
- Undertook a field-trip with river engineers and private landowners to discuss drain maintenance.



Photo 6: Re-battering Quaifes Road drain.

Communications workstream

- Developed and implemented a Strategic Communications Plan.
- Produce regular [stories](#) on the programme's website (<http://tewaihora.org/>): 101 stories and counting.
- Over 1,100 followers of the programme's Twitter account (@tewaihora).
- Developed and implemented a joint media protocol between programme partners.

Programme management workstream

- Established a robust programme management structure for reporting, financial management, project management, and risk management.
- Developed and implemented a:
 - Business Case;
 - Programme Management Plan, with a Decision-Making Matrix;
 - [Health and Safety Management System](#);
 - Risk register on Risk Manager on-line; and,
 - Contract Management Framework.
- Produced an Investment Approach, and Funder Engagement Plan, for Phase Two (2017-2027) of the programme.

Achievements of Phase One (2012-2017)

Legend

Biodiversity

- = Planting
- = Te Repo Orariki (Taumutu Wetlands)
- = Willow and weed control
- = Possum monitoring and control

Science

- = Wave barrier and artificial islands
- = Planted macrophytes
- = In-lake nutrient processing research/ upgraded nutrient model for the lake
- = Fisheries management research
- = Investigation into lake opening options
- = Investigation into nutrient attenuation
- = Water sampling sites
- = Automated water monitoring system
- = Fish habitat survey of the Halswell/Huritini River and Ahuriri Lagoon
- = Canterbury mudfish habitat survey

Extension

- ▲ = Kids Discovery Plant-out site
- ▲ = Farm Environmental Plan
- ▲ = Farm Environmental Plan workshops
- ▲ = Phosphorus and Sediment Field-Day
- ▲ = Support for COMAR monitoring and analysis
- ▲ = Draft Kaituna Catchment Management Strategy
- ▲ = Support for Hart's Creek video
- ▲ = Streamwalk

Cultural

- ◻ = Cultural monitoring of mahinga kai
- ◻ = Investigations into mahinga kai bio-health

Engineering

- ◆ = Re-battering of waterway
- ◆ = Works on river banks to reduce erosion
- ◆ = Investigation into the sediment sources in the Halswell/Huritini River
- ◆ = Designs for two riffles on the Halswell/Huritini River

